Complete Summary

GUIDELINE TITLE

Promotion of healthy weight-control practices in young athletes.

BIBLIOGRAPHIC SOURCE(S)

American Academy of Pediatrics Committee on Sports Medicine and Fitness. Promotion of healthy weight-control practices in young athletes [published errata in Pediatrics 2006 Apr;117(4):1467]. Pediatrics 2005 Dec;116(6):1557-64. [81 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

This updates a previously published version: Committee on Sports Medicine and Fitness. Promotion of healthy weight-control practices in young athletes. Pediatrics 1996;97:752-3.

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COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Unhealthy weight-control practices in young athletes

GUIDELINE CATEGORY

Counseling
Prevention

CLINICAL SPECIALTY

Family Practice
Pediatrics
Sports Medicine

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To provide resources and recommendations that can be used to counsel athletes, parents, coaches, and school administrators in discouraging inappropriate weight-control behaviors and encouraging healthy methods of weight gain or loss, when needed

TARGET POPULATION

Child and adolescent athletes

INTERVENTIONS AND PRACTICES CONSIDERED

1. Physical examinations including weight history
2. Recognizing signs and symptoms of eating disorders
3. Assessing nutritional needs and referring to dietician as necessary
4. Assessing weight 1 to 2 times per year for athletes in sports where weigh-ins are required
5. Instituting appropriate weight gain/loss program
6. Fluid replacement in athletes as necessary
7. Prohibiting weight loss by certain methods such as overexercising, dehydration/fluid reduction methods, vomiting, and use of medications

MAJOR OUTCOMES CONSIDERED

- Weight
- Body mass index

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

1. Physicians who care for young athletes should have knowledge of healthy weight-gain and weight-loss methods. They should understand minimal recommended weight, normal growth curves, and body composition

measurements and be willing to educate athletes, families, coaches, athletic trainers, school administrators, and state and national organizations when appropriate. Physicians should understand that all athletes are unique and each athlete must be evaluated individually.

2. All physical examinations of young athletes should include a weight history and a history of eating patterns, hydration practices, eating disorders, heat illness, and other factors that may influence heat illness or weight control.
3. Physicians should be able to recognize early signs and symptoms of an eating disorder and obtain appropriate medical, psychological, and nutritional consultation for young athletes with these symptoms.
4. Nutritional needs for growth and development must be placed above athletic considerations. Fluid or food deprivation should never be allowed. There is no substitute for a healthy diet consisting of a variety of foods from all food groups with enough energy (calories) to support growth, daily physical activities, and sports activities. Daily caloric intake for most athletes should consist of a minimum of 8400 kJ (2000 kcal). Athletes need to consume enough fluids to maintain euhydration. Physicians should engage the services of a registered dietitian familiar with athletes to help with weight-control issues.
5. In sports for which weigh-ins are required, athletes' weight and body composition should be assessed once or twice per year. The most important assessment is obtained before the beginning of the sport season. This should include a determination of body fat and minimal allowable weight when the athlete is adequately hydrated (the National Wrestling Coaches' Association [NWCA] Internet Weight Classification Program is available at www.nwcaonline.com [National Wrestling Coaches Association, 2003] or by calling 717-653-8009 [see Figure 1 and Appendix in the original guideline document]). Weigh-ins for competition should be performed immediately before competition (Opplinger et al., 1996). Athletes should be permitted to compete in championship tournaments only at the weight class in which they have competed for most other athletic events that year (National Wrestling Coaches Association, 2003; National Collegiate Athletic Association, Wrestling Committee, 2003; Opplinger et al., 1996).
6. Male high school athletes should not have less than 7% body fat. This minimal allowable body fat may be too low for some athletes and result in suboptimal performance. Female athletes should consume enough energy (calories) and nutrients to meet their energy requirements and experience normal menses. There are no recommendations on body-fat percentages in female athletes.
7. A program for the purpose of gaining or losing weight should (a) be started early to permit a gradual weight gain or loss over a realistic time period, (b) permit a change of 1.5% or less of one's body weight per week, (c) permit the loss of weight to be fat loss and the gain of weight to be muscle mass, (d) be coupled with an appropriate training program (both strength and conditioning), and (e) incorporate a well-balanced diet with adequate energy (calories), carbohydrates, protein, and fat. After athletes obtain their desired weight, they should be encouraged to maintain a constant weight and avoid fluctuations of weight. A weight-loss plan for athletic purposes should never be instituted before the 9th grade.
8. Any athlete who loses a significant amount of fluid during sports participation should weigh in before and after practices, games, meets, and competitions. Each pound of weight loss should be replaced with 1 pint of fluid containing carbohydrates and electrolytes before the next practice or competition. Fluids

should be available, and the drinking of such should be encouraged at all practices and competitions.
9. Weight loss accomplished by overexercising; using rubber suits, steam baths, or saunas; prolonged fasting; fluid reduction; vomiting; or using anorexic drugs, laxatives, diuretics, diet pills, insulin, stimulants, nutritional supplements, or other legal or illegal drugs and/or nicotine should be prohibited at all ages (Gomez, 2005; National Collegiate Athletic Association, 2003).
10. Athletes who need to gain weight should consult their physician for resources on healthy weight gain and referral to a registered dietitian. They should be discouraged from gaining excessive weight, which may impair performance, increase the likelihood of heat illness, and increase the risk of developing complications from obesity.
11. Ergogenic aids and nontherapeutic use of supplements for weight management should be prohibited (Gomez, 2005; National Collegiate Athletic Association, 2003).
12. Young athletes should be involved in a total athletic program that includes acquisition of athletic skills and improvement in speed, flexibility, strength, and physical conditioning while maintaining good nutrition and normal hydration. This should be done under the supervision of a coach who stresses a positive attitude, character building, teamwork, and safety (Washington et al., 2001).

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Recognition of the young athlete who is at risk of developing unsafe weight-control practices
- Promotion of healthy weight-control practices in young athletes

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1996 May (revised 2005 Dec)

GUIDELINE DEVELOPER(S)

American Academy of Pediatrics - Medical Specialty Society

SOURCE(S) OF FUNDING

American Academy of Pediatrics

GUIDELINE COMMITTEE

Committee on Sports Medicine and Fitness

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

Electronic copies: Available from the American Academy of Pediatrics (AAP) Policy Web site.

Print copies: Available from American Academy of Pediatrics, 141 Northwest Point Blvd., P.O. Box 927, Elk Grove Village, IL 60009-0927.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on January 30, 2006. The information was verified by the guideline developer on April 7, 2006.

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Date Modified: 9/25/2006